NATURAL CHECKS ON HUMAN PROGRESS.

IN times past the poetic imagination has created fanciful pictures of a Golden Age when the world was young and when mankind was innocent and happy, pictures like that, for example, of the Garden of Eden before the "fall" and before the coming into the world of sin, work and death. Traditional theology has ascribed evil to man's waywardness and departure from the perfect conditions which God established in the beginning, in the dim dawn of human life. Modern evolutionary ways of thinking, however, have turned man's face to the future instead of to the past in the universal quest for a perfect world and a perfect social order. The age of innocence has come to be looked upon as a final goal to be achieved, not as the first condition of man. The picture that Thomas Hobbes gave us in the seventeenth century of the life of primitive man as "poor, nasty, brutish and short" was like a forecast of nineteenth-century Darwinian conclusions. To many it now seems easy to conceive of a genuine Golden Age that is to come as the final fruitage of the tree of human life, the roots of which are fixed deep in the soil of past struggle and suffering. Mankind has ascended from a brute ancestry; but, just as the rose, with its roots in the dark soil, is none the less beautiful and fragrant, so the human race of the future may acquire a happiness and perfection none the less complete for having sprung from a lowly origin.

Such, in brief, is the optimistic story told by many

readers of the evolutionary records. If, however, one desires to be guided by the facts and by the sober truth, one should examine with care the foundations of all evolutionary theories that are completely optimistic in regard to the possibilities of the future. The fact of present suffering and dissatisfaction is obvious. The fact of much injustice and of many social ills that might be remedied is obvious also. But the views of the would-be reformer who assumes the possibility of the final elimination of all social evils and the consequent attainment of a state of perfect human happiness, are as unscientific as the views of the poets who have beguiled man's fancy with stories of a Golden Age in the past. So far as ideals are guiding stars of human conduct, they are valuable, no matter how completely incapable of realization, or perhaps just because of being unrealizable. As Browning says, "A man's reach should exceed his grasp." But when poetic ideals are presented in the guise of prosaic facts, the intellect is in danger of stultification.

It is with the purpose of distinguishing between fact and fancy in sociological theory that I am attempting to point out certain natural checks on human progress. Two errors are at the basis of all social theories which postulate the possibility of the eventual elimination of all human ills. In the first place, in all such theories there is the failure to take sufficiently into account human nature itself, and the limitations imposed upon human development by the facts of heredity. Thus the first great check upon the perfectibility of human nature is, paradoxical as it may seem, human nature itself. In the second place, in all Utopian theories there is neglect of the inevitable limitations imposed by the physical environment in which human life finds itself placed. The sciences teach us that the world was not made for man. The universe is in debt to no one for a luxurious life, nor does it owe any one even a bare

living. Man's life has always been maintained, and must always be maintained, through unceasing struggle with a physical environment which is indifferent to human weal or woe, and from which the means of life must be wrested by persistent human effort. For these two reasons, therefore, namely, the limitations of human nature and of inanimate nature, the upward progress of mankind can not be indefinite.

Two views of human nature, contrasting in the extreme, have been held in the past. According to traditional Augustinian and Calvinistic theology, through Adam's sin, which has become fatally hereditary in the race, all of mankind has been corrupted. Theological views of original sin, infant damnation and the like, are but slightly familiar to the modern world, but they have been of immense importance in the history of theology. Another view of human nature was promulgated influentially by Rousseau in the eighteenth century. His book *Emile*, valuable in many respects and now regarded as the corner-stone of modern educational theory, proclaimed a view of human nature diametrically opposed to the Augustinian view. The very first sentence of the book makes the assertion, "Coming from the hand of the Author of all things, everything is good." Rousseau refers especially to child nature, which he regards as wholly good. Moreover, according to Rousseau, but for errors of individual development due to imperfections in our educational methods, adult human nature would remain as completely perfect as child nature. Rousseau was a sentimentalist, and his views concerning the natural perfection of man seem as fantastic to the modern scientific mind as do the old theological views of original sin. This romantic conception of human nature, however, has persisted in many quarters, and forms one of the basic errors in the reasoning of many social theorists.

Is human nature inherently good, as Rousseau claimed,

or wholly bad, as Augustine asserted? As in the case of all other extreme theories, so here, the truth lies midway between the extremes. Human nature is partly good and partly bad. Modern studies of the original nature of man have given us lists of inherited tendencies. The most important of these tendencies are the instincts, of which man possesses a greater number, according to William James, than do the animals below man. All of the instincts have been biologically useful at some time in the past. Man's ancestors were prehuman many times longer than they have been human, and modern man's human ancestors were savages many times longer than they have been civilized. The instincts are an inheritance from the jungle existence of countless generations, which struggled with tooth and claw, and then with war-club and battle-ax, for existence and for supremacy. In former times the instincts were all useful, under the conditions of jungle and of savage life; but their strong persistence as a fundamental part of human nature after civilized conditions have been established, creates numerous problems, since the instincts are not always useful now. Many of the vices and crimes of modern man are the result merely of the exercise of normal human instincts, though some of the virtues also of modern man are equally the result of instinct. Egoism, for example, is based on those instincts which have contributed directly to individual self-preservation; but altruism also is instinctive, being an outgrowth of the parental and the gregarious instincts, which have been instrumental to the preservation of the social group. Original human nature, therefore, cannot be called wholly good or wholly bad, but both in some degree; and the degree of goodness or badness is to be measured in terms of the ethical quality of the instincts when exercised under modern conditions.

From the fact of the non-inheritance of acquired characteristics, a fact established by Weismann and widely

accepted by biologists, there follow certain other facts of importance for education and for social progress. Civilization, by which we refer to a condition of culture characterized by a complex development of religious, social and political institutions, together with achievements in literature, art and science, is wholly a matter of acquired characteristics. Consequently, civilized ways are not inherited. Sometimes we speak of social heredity in explaining the transmission of cultural elements from one generation to the next. Social heredity, however, is not really heredity, but rather education in the broad sense of the term. Civilization is an artificial condition, maintained at the cost of unceasing effort. Each new generation is born with an inherited equipment of instincts and capacities little superior to the equipment of our savage and barbarous ancestors at the stage of evolution immediately preceding the dawn of civilization. If it were possible for one generation to be left entirely to itself, and if all influences from a civilized environment might be excluded, this segregated generation would relapse completely to a state of savagery. Romulus and Remus, the legendary founders of Rome, were said to have been suckled by a she-wolf, which had saved them from death through exposure on the bank of the river Tiber. The impossibility of any such occurrence as a matter of serious history is obvious merely from the fact that acquired characteristics are not inherited. Romulus and Remus were born of (somewhat) civilized ancestry; but, if they had actually been reared in the wilderness by wolves, they would have been lacking in all the essential qualities of civilized life, and consequently they would have been incapable of founding a city. Capacity is inherited, but the direction in which attainment is to occur depends upon the directing influence of the environment.

Original human nature, unmodified by civilizing influences, is thus seen to be necessarily far from perfect

when judged from a cultural view-point. By original human nature is meant human nature in its hereditary aspect, and most of the hereditary elements come from an immemorial, uncivilized past. Instincts evolved in the jungle and tendencies bred in savagery constitute the fundamental material with which the sociologist must deal. If acquired characteristics were hereditary, it would be possible for each generation to begin where the last left off, and to forge ahead rapidly. Many theories of rapid social progress assume unconsciously that this is possible. If the whole educative effort of each generation might be expended in projecting the next generation forward, then there would be no limit to the possibility of social advance. But a large part of the educative effort of each generation must be utilized in the never-ending process of bringing the new generation up from its original, primeval condition to the existing level of culture. Merely to maintain the present status of culture requires ceaseless effort, and relapse to the primitive is only too easy at any time, and too rapid whenever it occurs. Each new generation begins, not at the stage of culture reached by the preceding generation, but at practically the same point at which the preceding generation started. Such a thing as a modern infant does not exist. An infant is no more modern or civilized in the twentieth century A. D. than was an infant in the twentieth century B. C. Moreover, each new generation has to begin as infants, not as adults. Some forward progress is possible, however, since the recapitulatory part of education, the retracing of what past generations have achieved, can be shortened somewhat, so that, to a limited extent, education can be, and is, of a genuinely prospective sort. A study of history shows that genuine progress has occurred, along with a certain amount of retrogression in some respects. Greek and Roman civilization, for example, was higher in some respects than modern civilization; while in other

respects, especially in the development and application of the sciences, the present stands supreme in comparison with all the past.

Though social progress is possible, and though it may be almost limitless in some directions, still a real Golden Age in the future is impossible if for no other reason than that each new generation must begin anew and relearn through painful effort the civilized ways of the past before forging ahead to new achievements of its own. In addition to this necessity of a certain amount of recapitulatory education, there is inherent in human nature another and a more serious limitation upon progress. I refer to the persistence in human nature through the force of heredity of traits and tendencies which smack so strongly of jungle and of savage life that their adaptation to civilized conditions can never be made perfect. The first check on social progress due to causes inherent in human nature is thus the failure of civilization to maintain itself through hereditary transmission, while the second check is of just the opposite sort—the too strong persistence through heredity of uncivilized traits which hark back to the primitive and which cause maladjustments in any refined society in spite of the best efforts of education.

This second point may be made clear by reference to specific problems that arise in connection with the necessary redirection in modern society of some of the instincts. A leading contemporary educational psychologist, Professor Thorndike, has defined education as the prevention and the production of changes in original human nature. Some elements of the child's innate endowment are good, and change of them is to be prevented; but other innate tendencies are bad and need to be changed in order that the individual may be fitted for a moral life. Nearly all of the instincts may be turned in some degree to desirable moral uses, but many of them tend constantly to express them

selves in injurious and immoral ways. This is the case, for example, with pugnacity. Its utility in past ages, in its original form of individual and group fighting, is obvious. Its present-day expression in this primitive form is considered immoral, however, in the light of the highest ethical standards. This instinct may be utilized, nevertheless, through sublimation, by which process other objects than the instinctive ones are substituted for it to act upon. It furnishes enormous energy, making possible some of man's best achievements. The social worker, for example, may utilize a sublimated form of pugnacity in fighting evil conditions and in feeling righteous indignation toward wrong. The complete sublimation of this or of any other instinct, however, is impossible; and it seems likely that pugnacity will find unsublimated expression indefinitely in the form of actual warfare. Consequently, the greatest problem to be faced by any league of nations that may try to prevent all wars arises from fundamental imperfections in human nature. Fear, also, like pugnacity, is an important instinct. Its necessity for the survival of the race in earlier times is clear. Through it dangerous situations have been avoided. There have been times when, from the point of view of individual and group safety, discretion was the better part of valor. Fear is capable of being sublimated and made to possess moral value when vice, dishonor and the like, become the objects feared. In the training of children fear of punishment is utilized as an incentive, though less frequently now than formerly. But fear has dangers for mental health. For example, unreasonable fears often arise in childhood, and these may mar the whole future development of the individual. Fear is so deep-seated in the race that it can never be completely eradicated; and, so long as it persists, universal happiness will not be attained.

Other instincts also have their bad as well as their good sides. That curiosity is recognized as being sometimes

bad is shown in the warning that "curiosity once killed a cat." When sublimated in the form of intellectual curiosity and of religious wonder, this is a valuable instinct; but will such unsublimated expressions of it as, for example, the improper prying into other people's affairs ever be stamped out, and will the Golden Age be really golden until such expressions of curiosity cease? The instinct, however, which has always caused the greatest amount of trouble of any, and the proper moral regulation of which has been society's most difficult and unsuccessful task, is the sex instinct. This instinct is the source of life's greatest happiness, but also of life's greatest misery. Its vital importance for racial survival has led to its becoming highly developed in ages past—far too strongly developed when considered in relation to the conditions of civilization. In civilized society complete expression of the instinct is morally impossible. Under the influence of moral, religious and esthetic ideals much of its insistent energy can be sublimated into the very highest forms of expression, such as mystical worship and artistic creation and appreciation. For but few individuals, however, do art and religion furnish a sufficient safety-valve for the instinct, and for even these few the stern repression that is necessary as a part of the sublimation process leads often to neurotic disturbances. For the great masses of mankind the sex instinct is the source of much disease and crime. Never can the race survive the disappearance of this instinct, but never can the race be free from disharmonies so long as the instinct persists. Neither with it nor without it will a perfect social order ever be possible.

A common fallacy in the thinking of numerous theorists is that of ignoring the biological checks upon the development of human virtue and intelligence. The individual who has achieved intellectual emancipation sometimes tends thenceforth to judge society as a whole in terms properly

applicable only to a few, and to think that the evils of ignorance and of superstition may eventually be cast off by every one. Then, with reason at the helm of life, all will be well with mankind. Thus runs the argument. The facts seem to indicate, however, that reason is relatively sterile in the biological sense, and that it is incapable of propagating itself extensively enough to become universal. The great intellects of history, our Platos, our Kants and our Newtons, have been childless. The intellectual and highly educated classes have always tended to be somewhat infertile. The population is, as a general rule, being constantly recruited most plentifully from the less intelligent portions of society. Saintliness and wisdom are hard pressed in their efforts to maintain themselves biologically.

In several ways, therefore, it is seen that human nature itself limits the prospect of indefinite human progress. Progress is limited also by inanimate nature. When theorists lay the blame for human suffering wholly upon the shoulders of certain unjust classes of society, or upon defects in the educational system, or upon some other social imperfection, they are apt to assume erroneously that, if only justice among men prevailed, nothing would remain to mar the picture of perfect happiness. A proper biological perspective of human life corrects such an assumption. The most fundamental law of the animate world is one of prolific multiplication far beyond the capacity of the environment to supply food. This law applies to man no less than to the lower animals. Of course, through the proper application of science to nature, the physical needs of an enormous population can be supplied. I would not argue specifically, as Malthus did, that the needs of the increasing population for food are constantly exceeding the food supply; but I would point out that this is the universal tendency in the world of life below man, and I would apply the principle more broadly in the human sphere, not limit-

ing it merely to the question of food, since "man does not live by bread alone."

Is inanimate nature limitless in resources and capable of furnishing sometime a perfect home for a perfect society? Was the physical world made especially for man's benefit and enjoyment? Has mankind any inherent right to demand life and luxury from nature? From the biological view-point, the answer to all these questions is negative. Life seems like an intruder into the vast world of inanimate nature, which existed long before the appearance of life, and which will survive life's extinction. From the standpoint of the sciences, the physical universe is wholly indifferent to the vital needs of plants and animals. Living forms have simply thrust themselves into the cracks and crannies of nature, encroaching everywhere upon an alien world. Mankind is in no position of special privilege. Nature may yield an abundance to meet the needs of man, but only so far as man asserts himself in a ceaseless effort to get what he needs. It is a case of nature helping only those who help themselves. That human needs may all be completely satisfied some day from nature's storehouse is a proposition to be proved or disproved, but not to be assumed.

As Dr. Schiller says in his *Riddles of the Sphinx*: "To primitive man the world is a terrible affair, replete with incalculable horrors, whose burden was alleviated only by the limitations of his imagining. It is still so beset with dangers that science may legitimately wonder whence man draws the strength to sustain the unequal struggle with the cosmic forces" (3d ed., p. 465). The evidence from the sciences of geology and astronomy is opposed to the assumption that the physical environment will eventually be shaped wholly to human uses and made productive of satisfactions for all human needs. Not only is the indifference of inanimate nature to man's present desires

shown by catastrophes such, for example, as ruinous earthquakes and volcanoes, droughts and floods; but the prospect for the distant future is one of final disintegration and destruction rather than of indefinite improvement. In *The Foundations of Belief* Mr. Balfour has pictured the last state of our portion of the physical universe in the following words: "The energies of our system will decay, the glory of the sun will be dimmed, and the earth, tideless and inert, will no longer tolerate the race which has for a moment disturbed its solitude" (p. 31).

Although social progress can not continue without limit, it may, nevertheless, be great even beyond the power of the twentieth century to imagine. Human nature itself limits progress in the specific ways that have been pointed out; but, nevertheless, human nature will unquestionably be more effectively adjusted to the environment by the better educational methods of the future, and it will be improved fundamentally through the widespread application of eugenics. Inanimate nature, like human nature, sets limits to progress, nor will it every be wholly kind to man; but the future progress of the sciences will enable man more and more, within limits, to bring the physical world under human control.

Human nature is such, however, that it will never be completely satisfied with a purely positivistic goal of social progress. There will always be felt, on some occasions, at least, and among some persons, the need of a romantic religion. "How painful is the actual world—the painful kingdom of time and place," said Emerson; and then his world-weary soul sought refuge in the Over-Soul. Thus has it always been with men of imagination, sensitive to the transcendental yearnings of humanity, and thus will it always be.

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